



An Energy Efficiency Workshop & Exposition

Palm Springs, California

LEMONS TO LEMONADE

THE MIRAMAR LANDFILL
COGENERATION PROJECTS

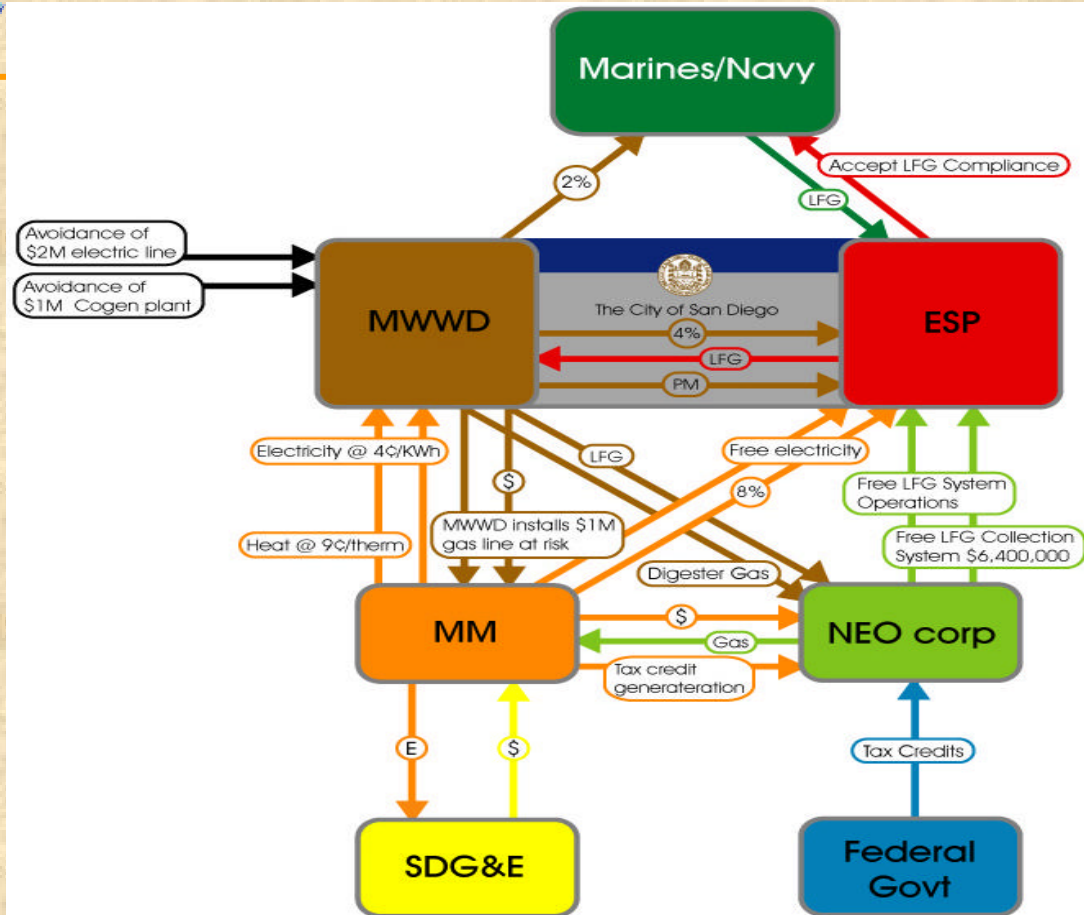


THE LEMONS

- **NAVY HAD THE RESPONSIBILITY FOR THE LFG AND THE APCD VIOLATIONS**
- **CITY LEASED AND OPERATED THE LANDFILL**
- **BOTH THOUGHT IT WAS THE OTHERS OBLIGATION TO INSTALL THE LFG SYSTEM**
- **MWWD NEEDED AN “ACCEPTABLE” SITE FOR THE METRO BIOSOLIDS CENTER**
- **CITY NEEDED MORE LANDFILL SPACE AND RECYCLING CENTERS**



THE PARTNERSHIP





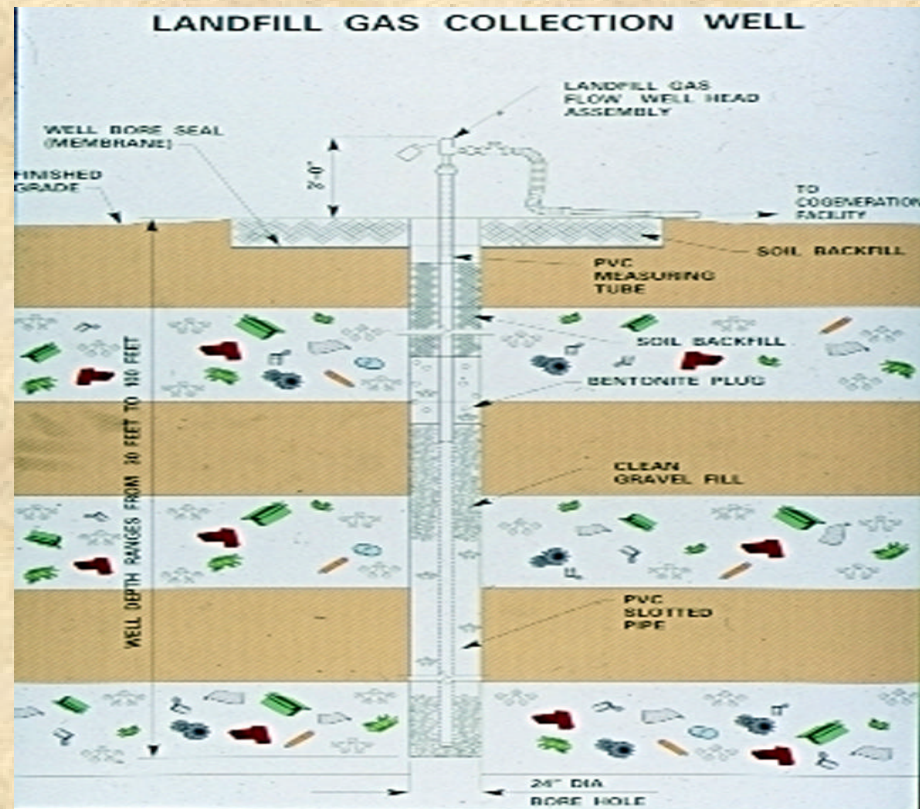
A LFG WELL



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LFG WELL CROSS SECTION





MAIN LP HEADER TO MBC





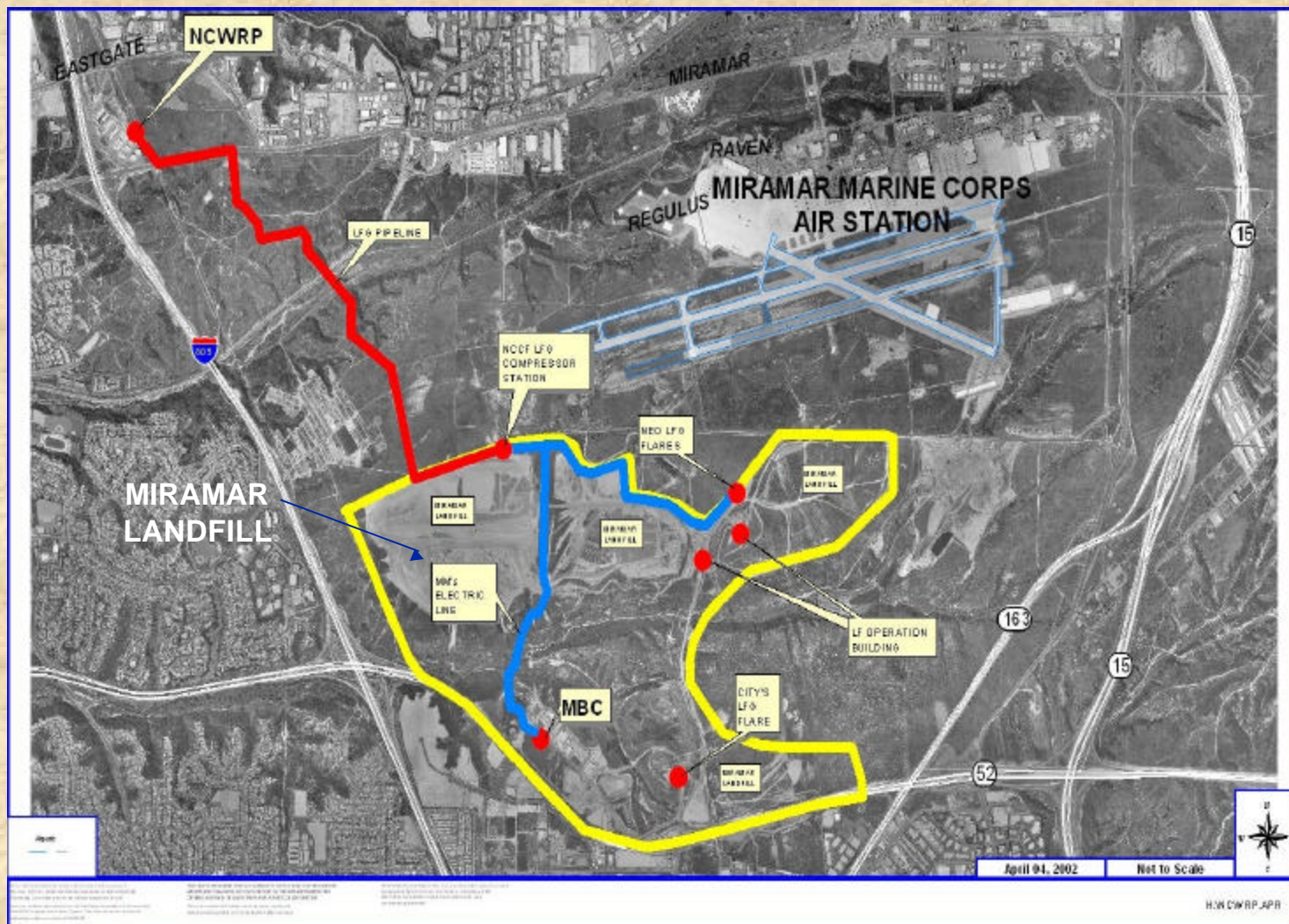
MAIN LP HEADER TO MBC





FLARE STATION







METRO BIOSOLIDS CENTER



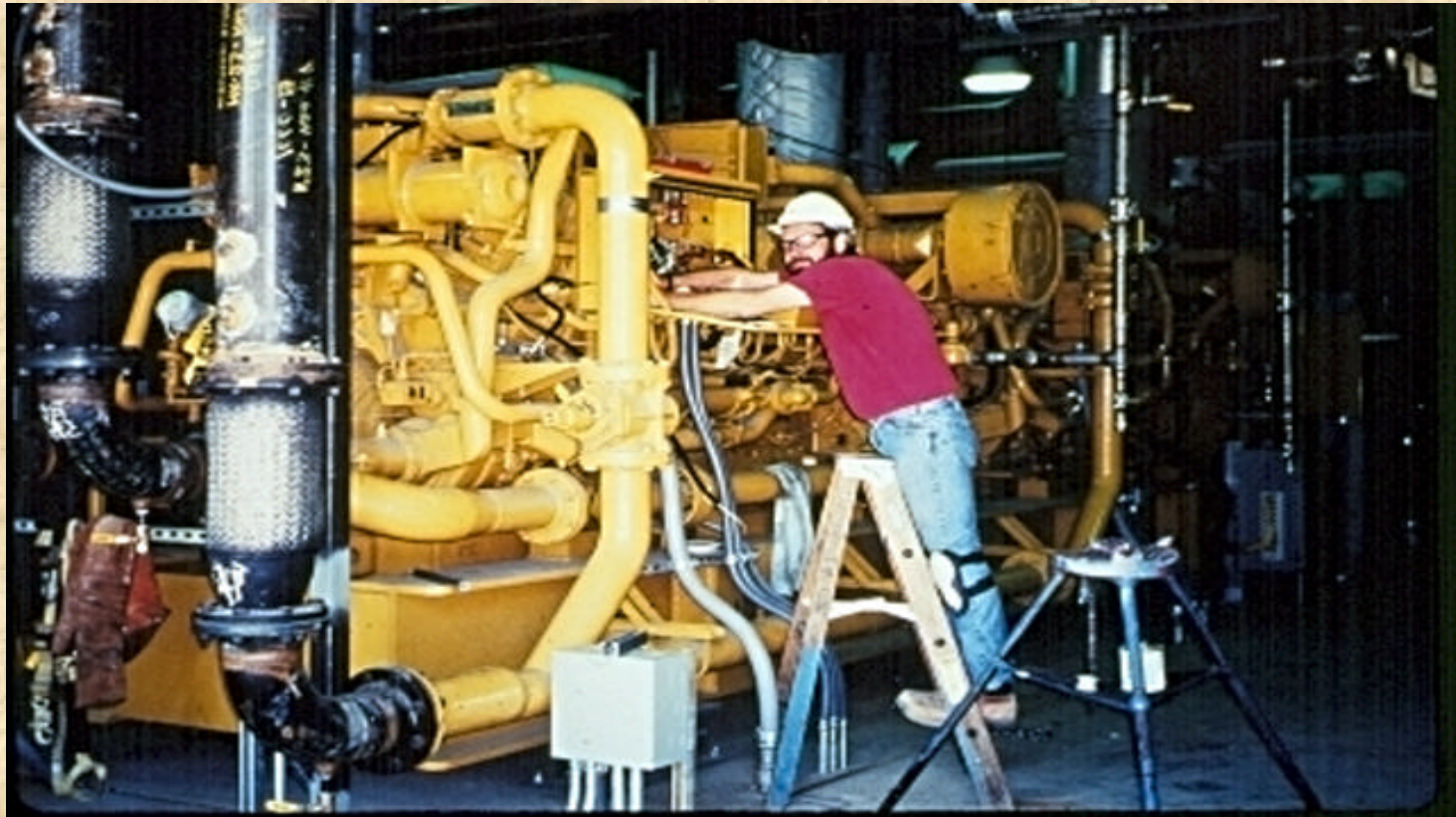


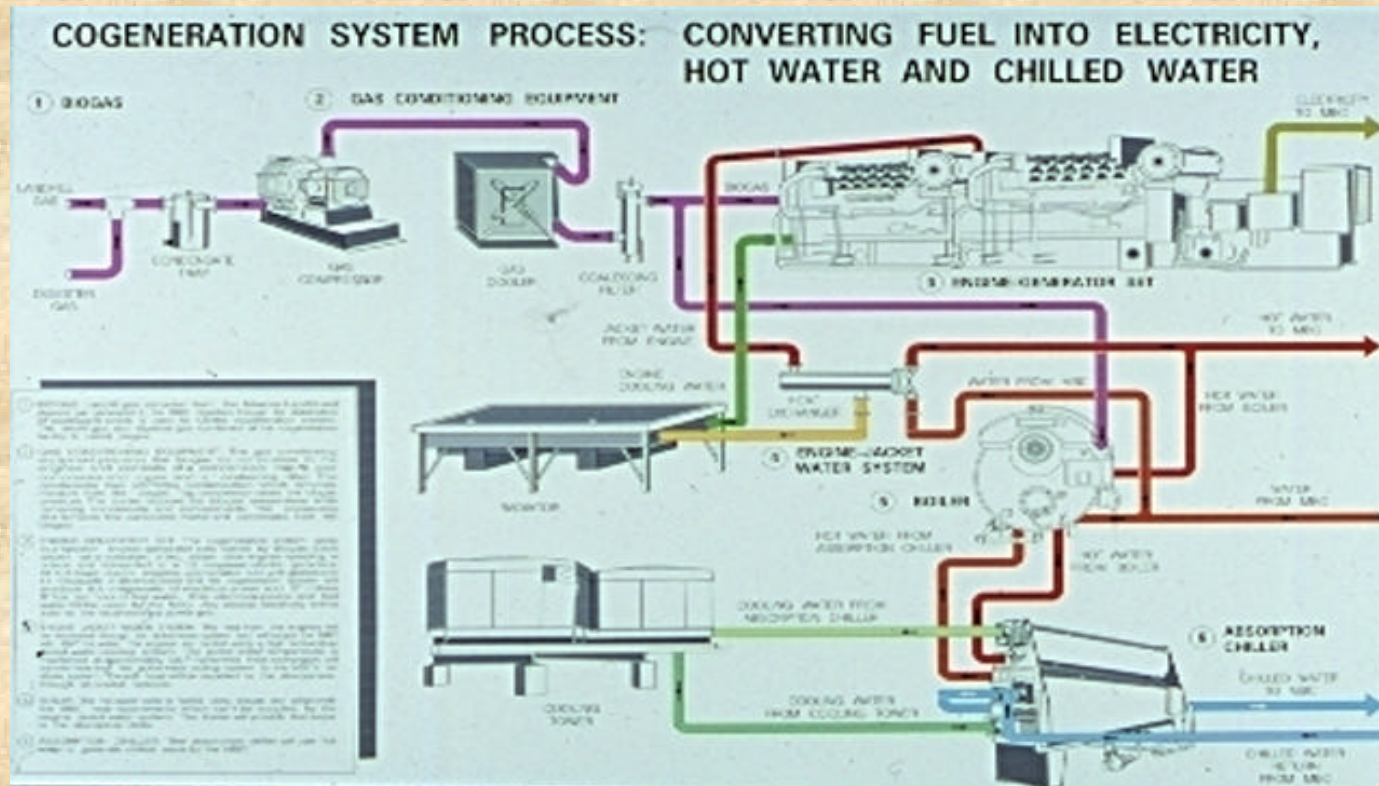
MBC COGENERATION SYSTEM





TANDEM CAT 3516 ENGINES







THE 1ST GLASS OF LEMONADE

- CITY AVOIDED CAPITAL COST OF \$10.4M
- MBC CURRENT SAVINGS APPROX. \$1.8M/YR
- MIRAMAR LANDFILL SAVINGS APPROX. \$.12M/YR ELECTICITY AND \$.25M/YR IN OPERATIONS
- TAX PAYER'S ASSOCCOATION GOLDEN WATCH DOG AWARD





NORTH CITY (COGEN) FACILITY





THE NORTH CITY WRP



NCCF

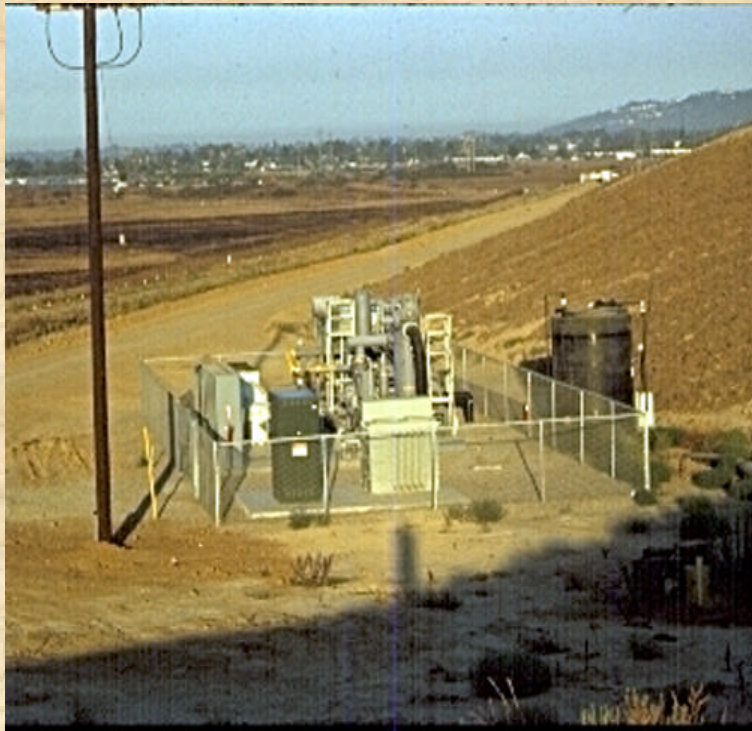


NORTH CITY COGEN FACILITY



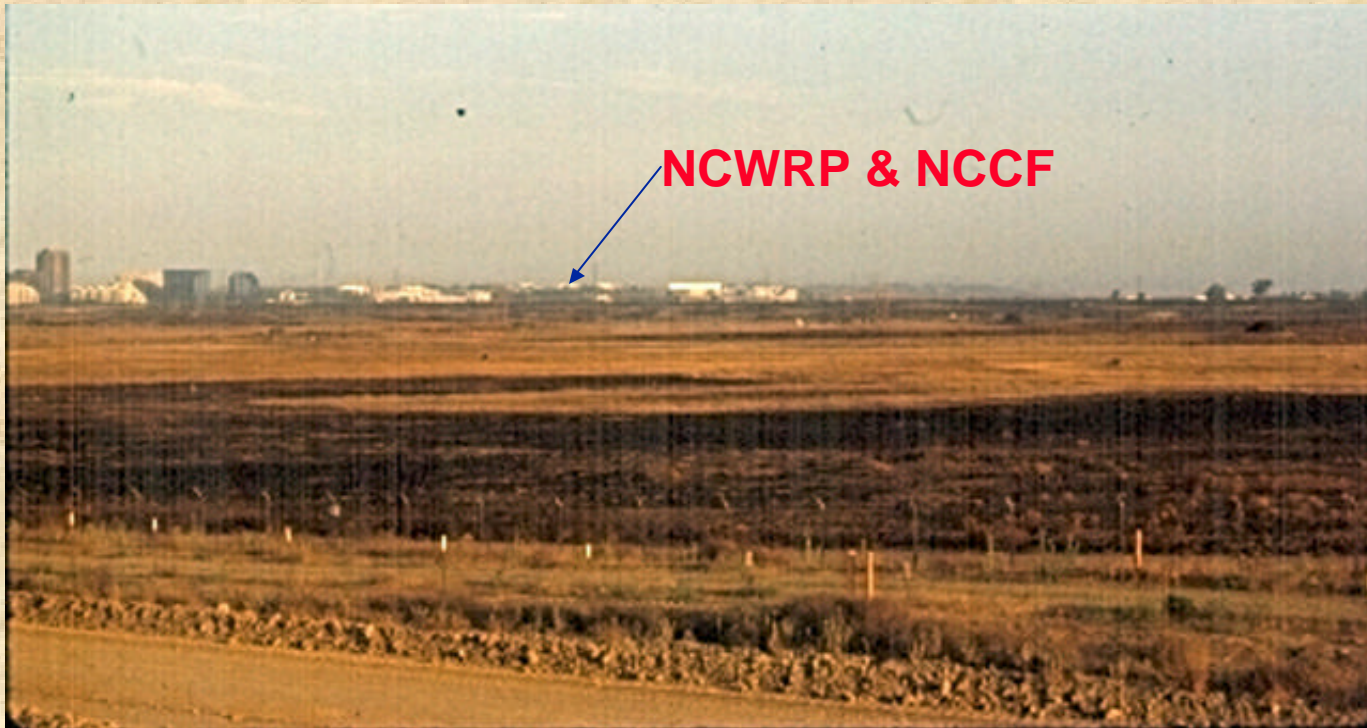


NCCF COMPRESSOR STATION





NCCF HP LFG PIPELINE



NCWRP & NCCF



NORTH CITY COGEN FACILITY





3.8 MW SMALL POWER PRODUCER





FOUR CAT 950KW 3516S



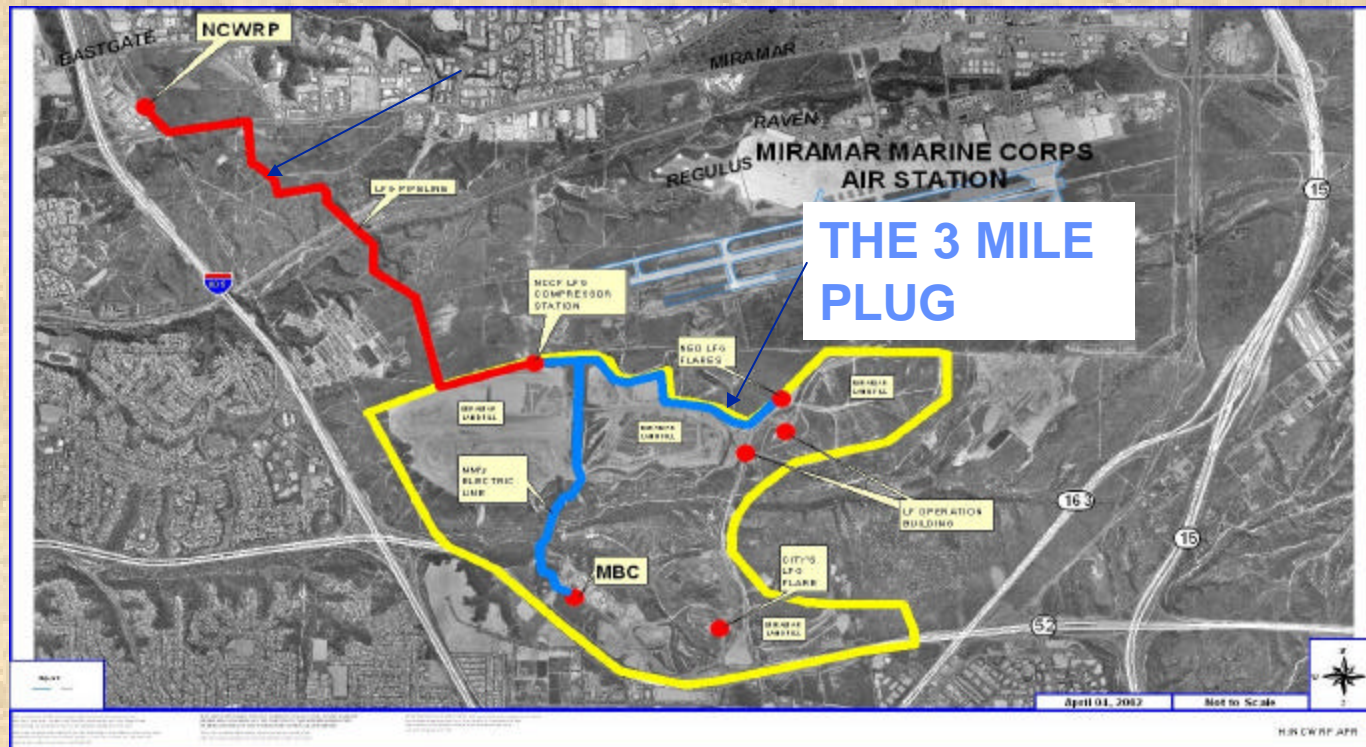


NCWRP ARCHITECTURE





THE RACE





OVER THE "RIVER"





TOGETHERNESS





MORE LEMONADE



**NCWRP IS
CURRENTLY
SAVING
MWWWD
\$2.3M/YR &
PROVIDING
OVER 8% TO
INSTALL LFG
SYSTEM**

